

Figure 1

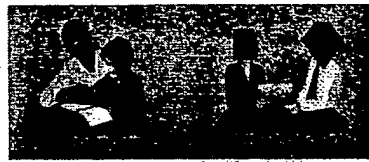


Figure ZA



Figure ZB



Figure ZC



Figure ZD

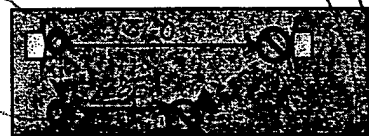


Figure ZE

Z10

Z20

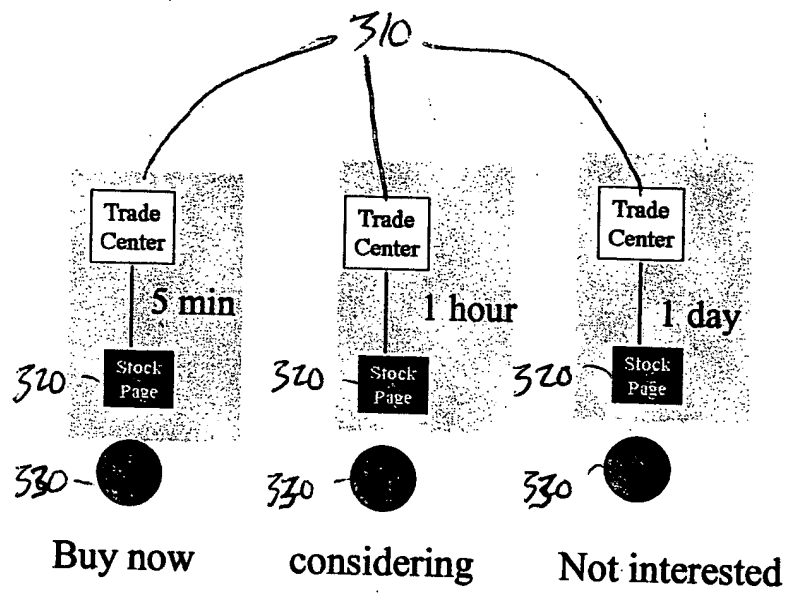


Figure 3.

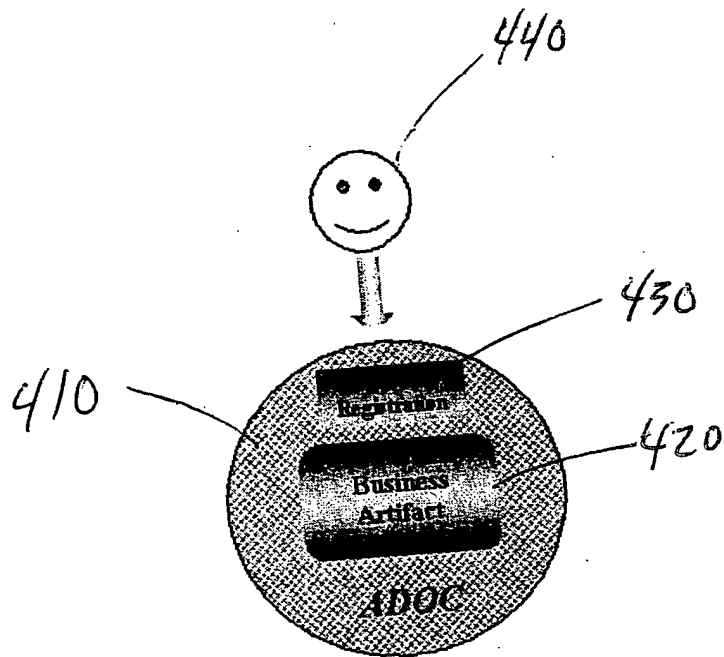


Figure 4

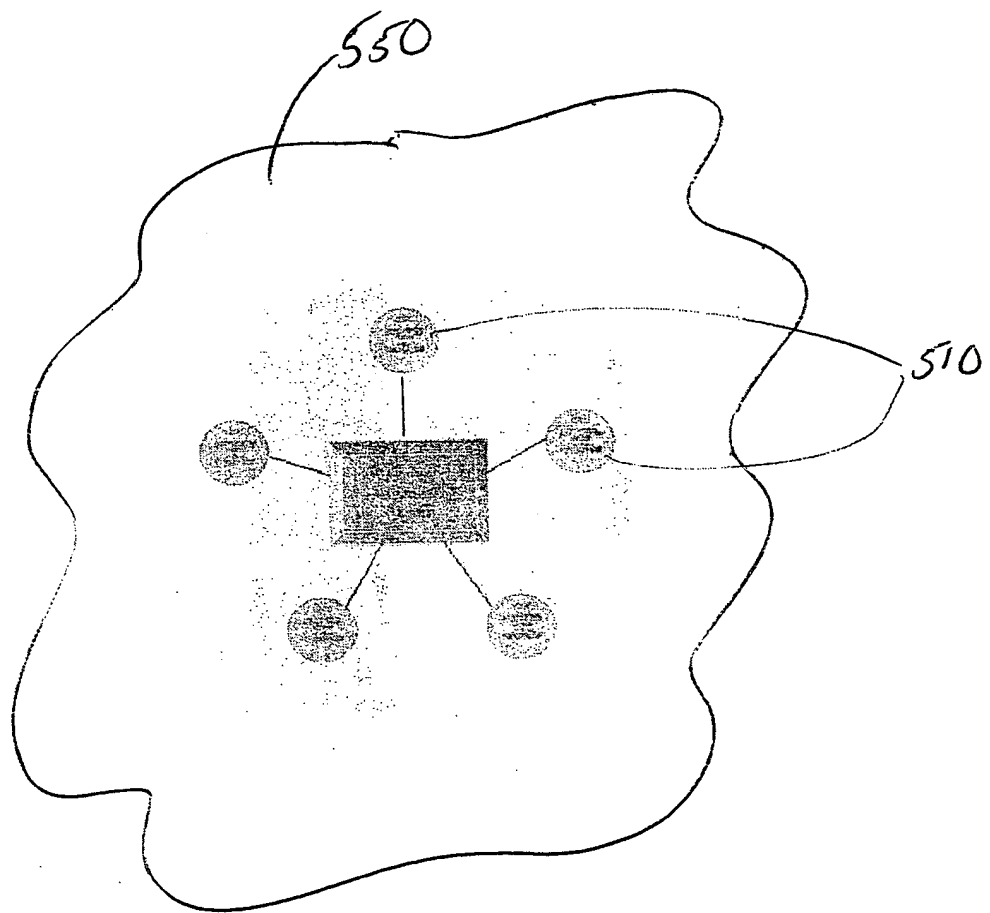


Figure 5

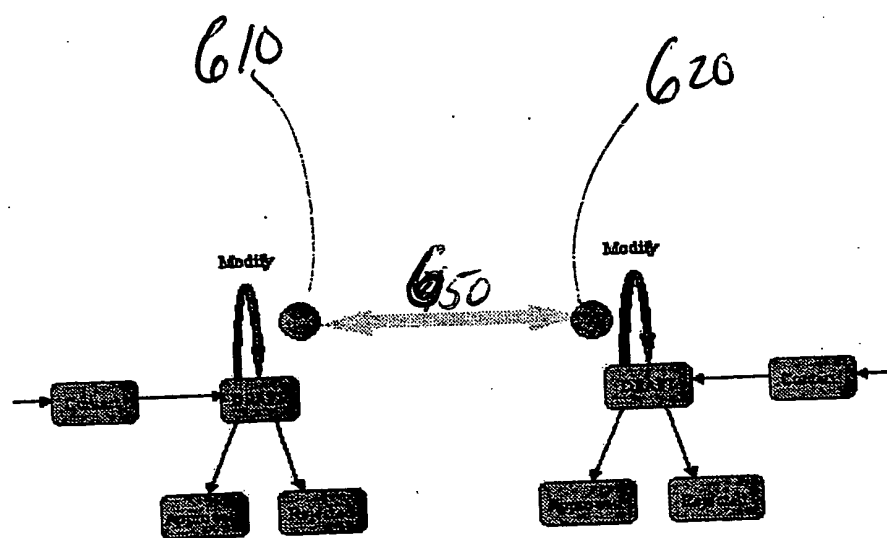
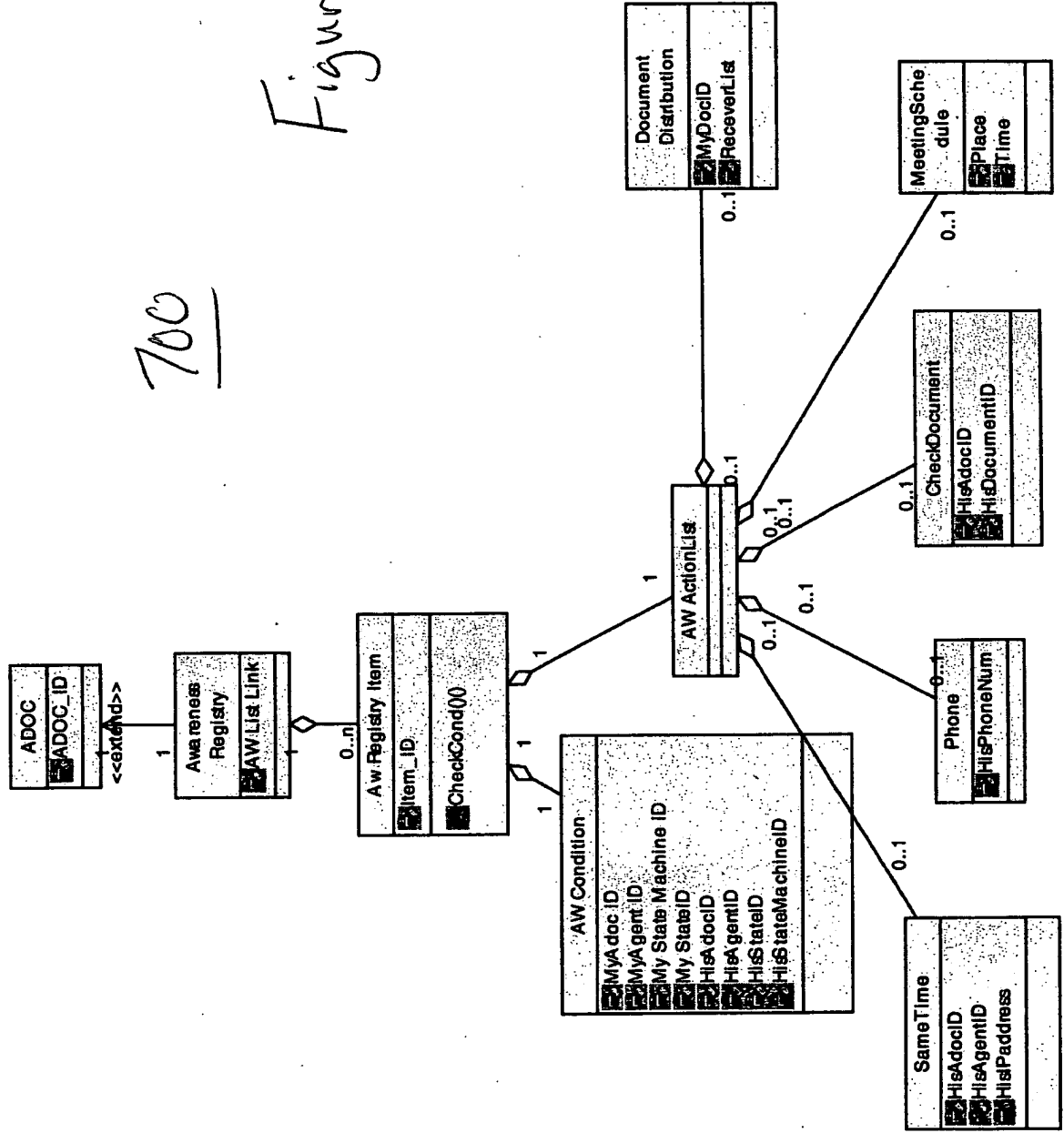


Figure 6

700

Figure 7



The screenshot shows a Windows XP desktop environment. The Start menu is open, displaying a list of applications and folders. The taskbar at the bottom includes the Start button, several open application windows (such as Internet Explorer and Outlook Express), and the system clock showing the time as 11:58 AM on 11/11/2003.

The left screenshot shows a window titled "Personnel" with a list of personnel. The list has columns for "Name", "Address", "Phone", "Fax", "E-mail", and "Type". The list contains one entry: "John Doe", "1234 Main St", "555-1234", "555-5678", "john.doe@company.com", "Employee". Below the list is a "Personnel" button.

The right screenshot shows a window titled "Personnel" with a list of personnel. The list has columns for "Name", "Address", "Phone", "Fax", "E-mail", and "Type". The list contains one entry: "John Doe", "1234 Main St", "555-1234", "555-5678", "john.doe@company.com", "Employee". Below the list is a "Personnel" button.

Figure 8B.

320

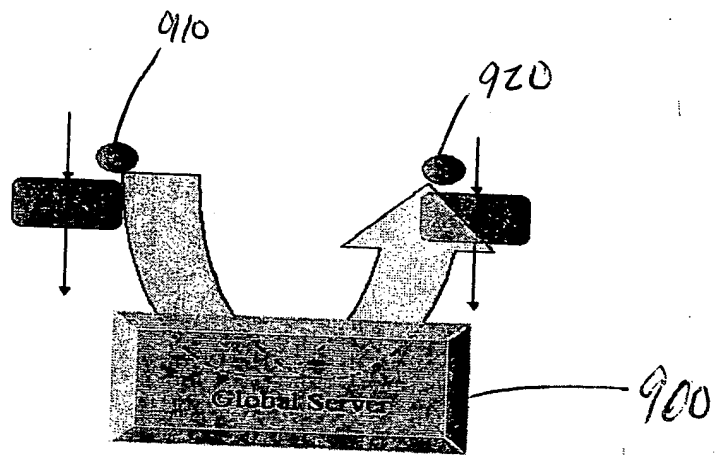


Figure 9

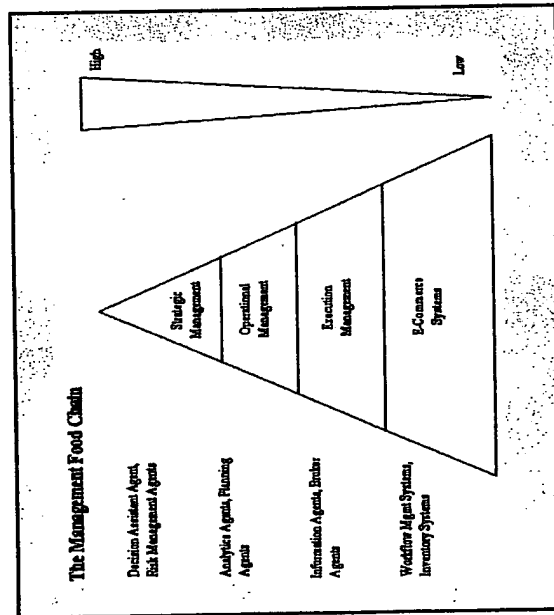


Figure 10A



Figure 10B

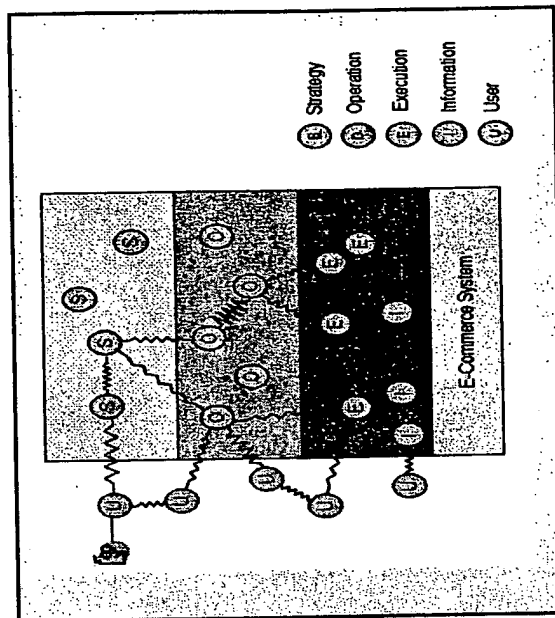


Figure 10C

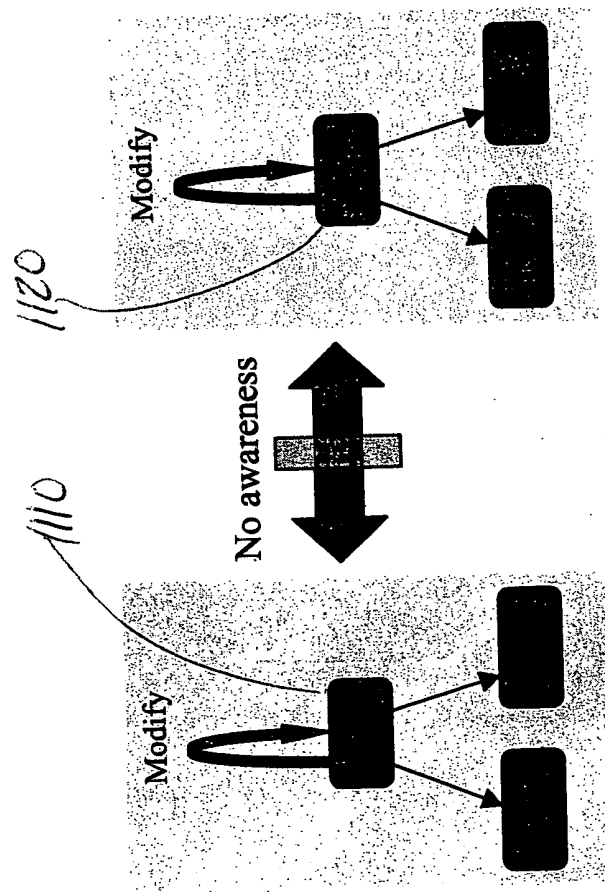


Figure 11

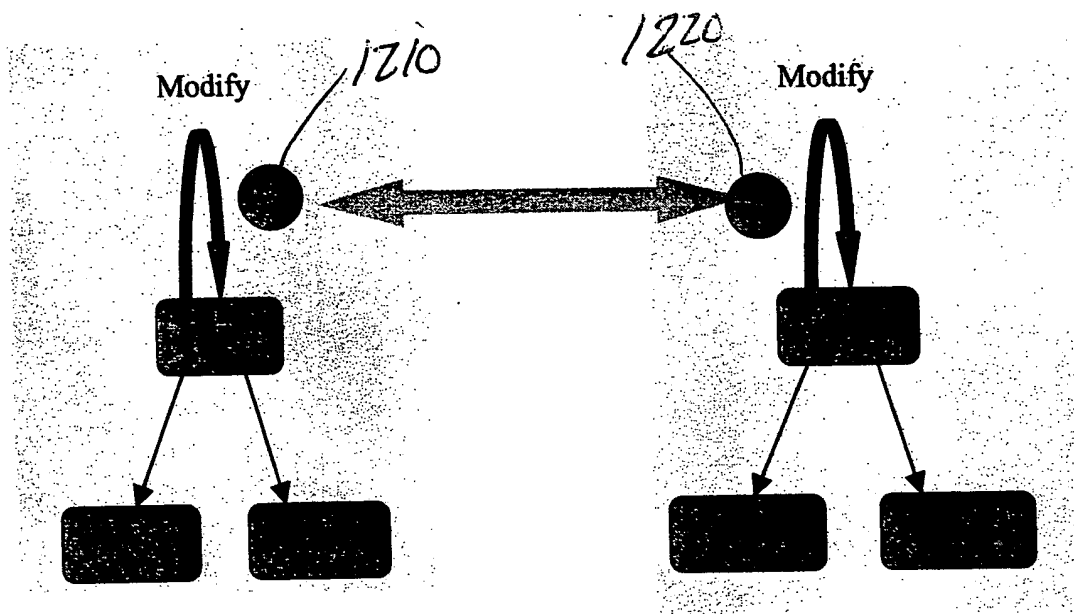


Figure 12

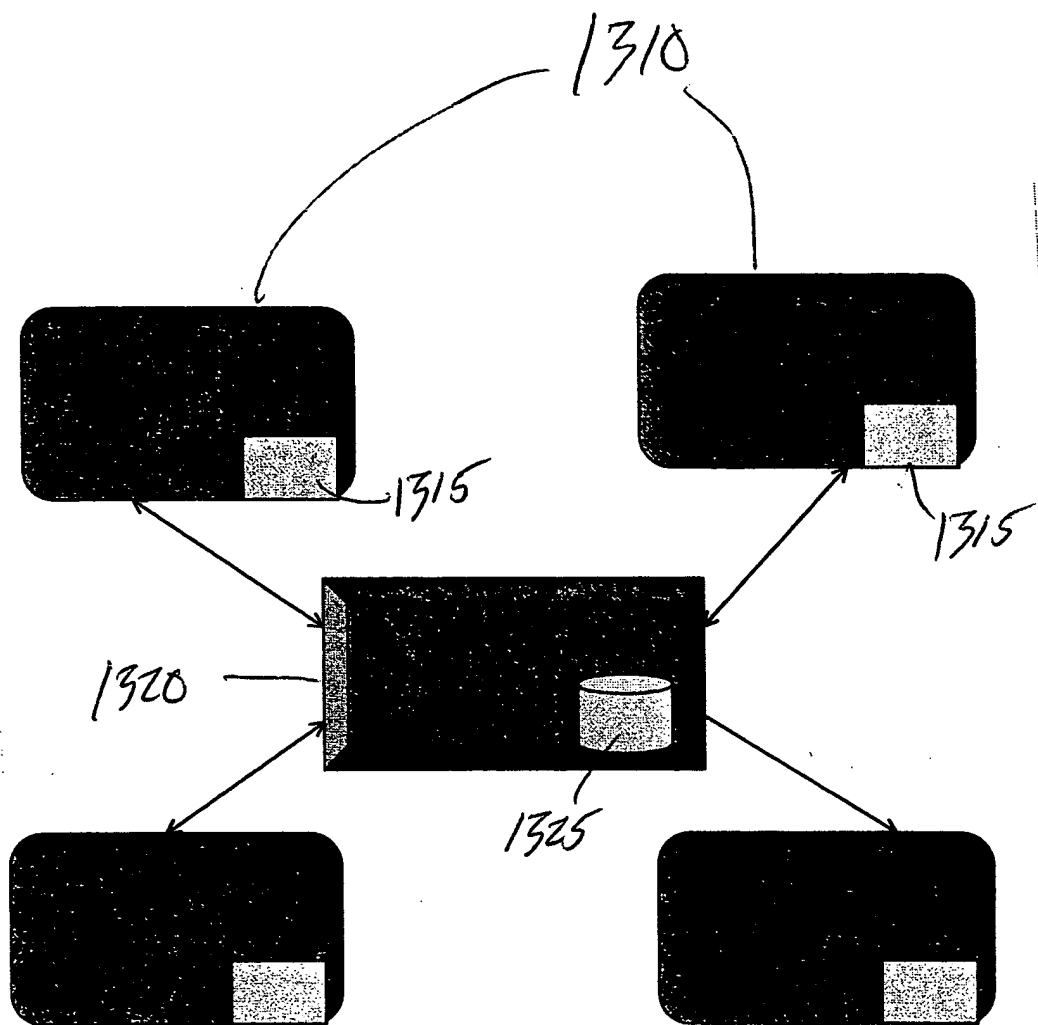


Figure 13

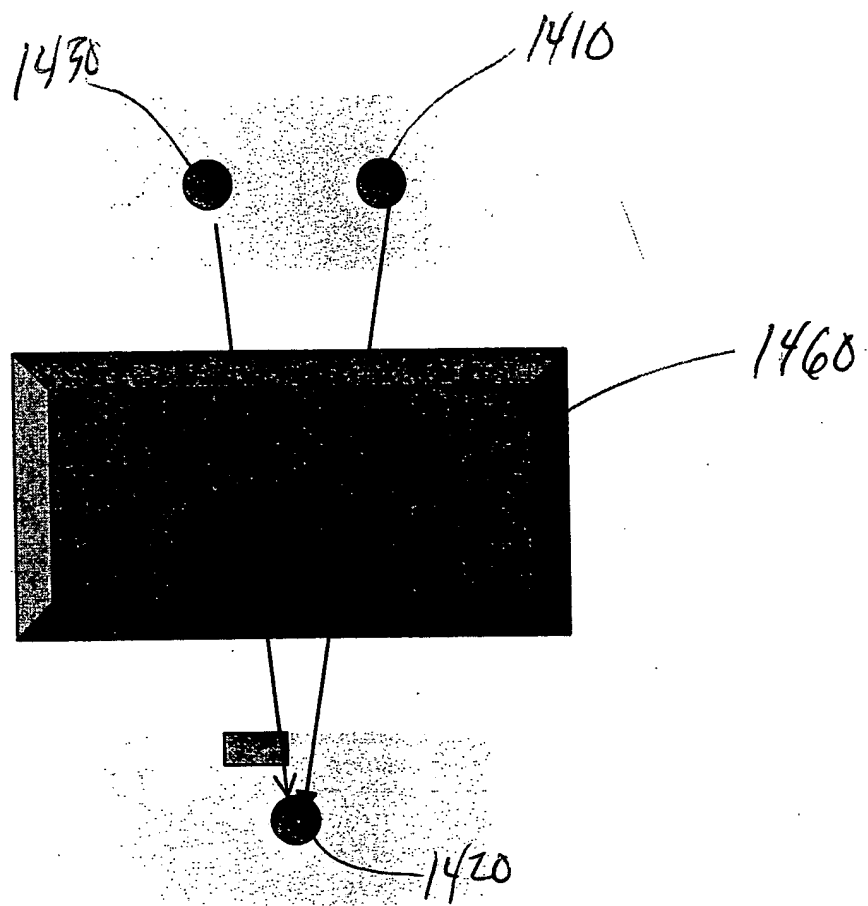


Figure 14

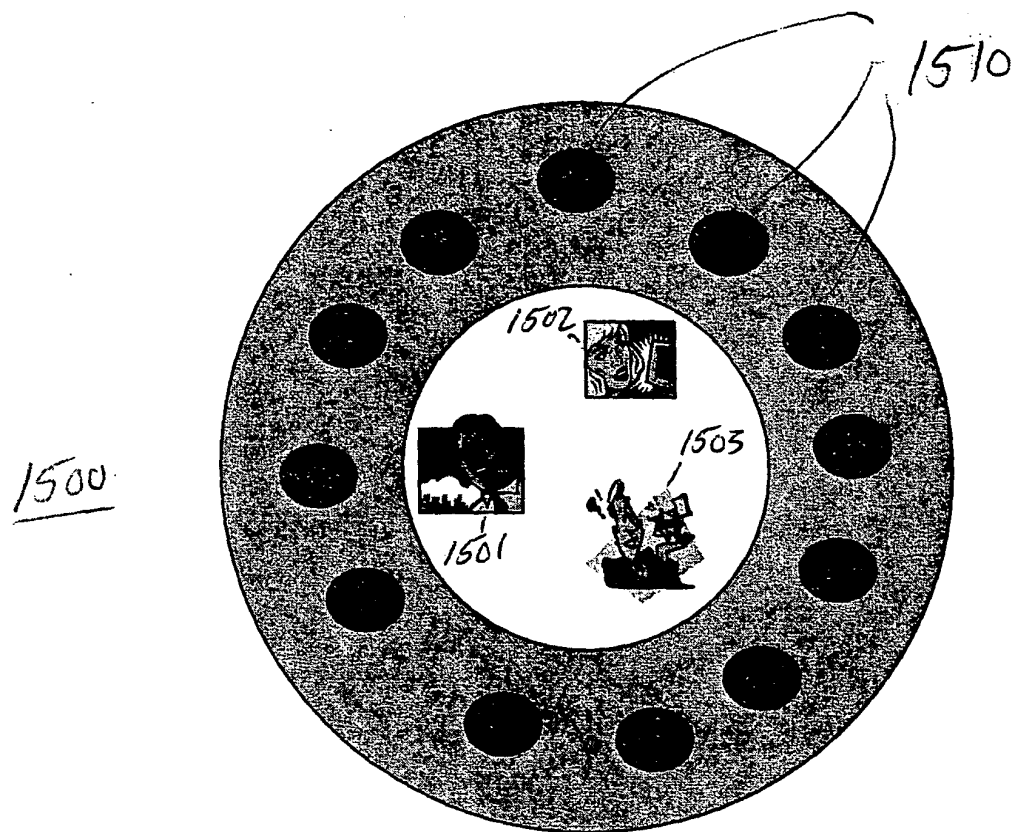


Figure 15A

Figure 15B

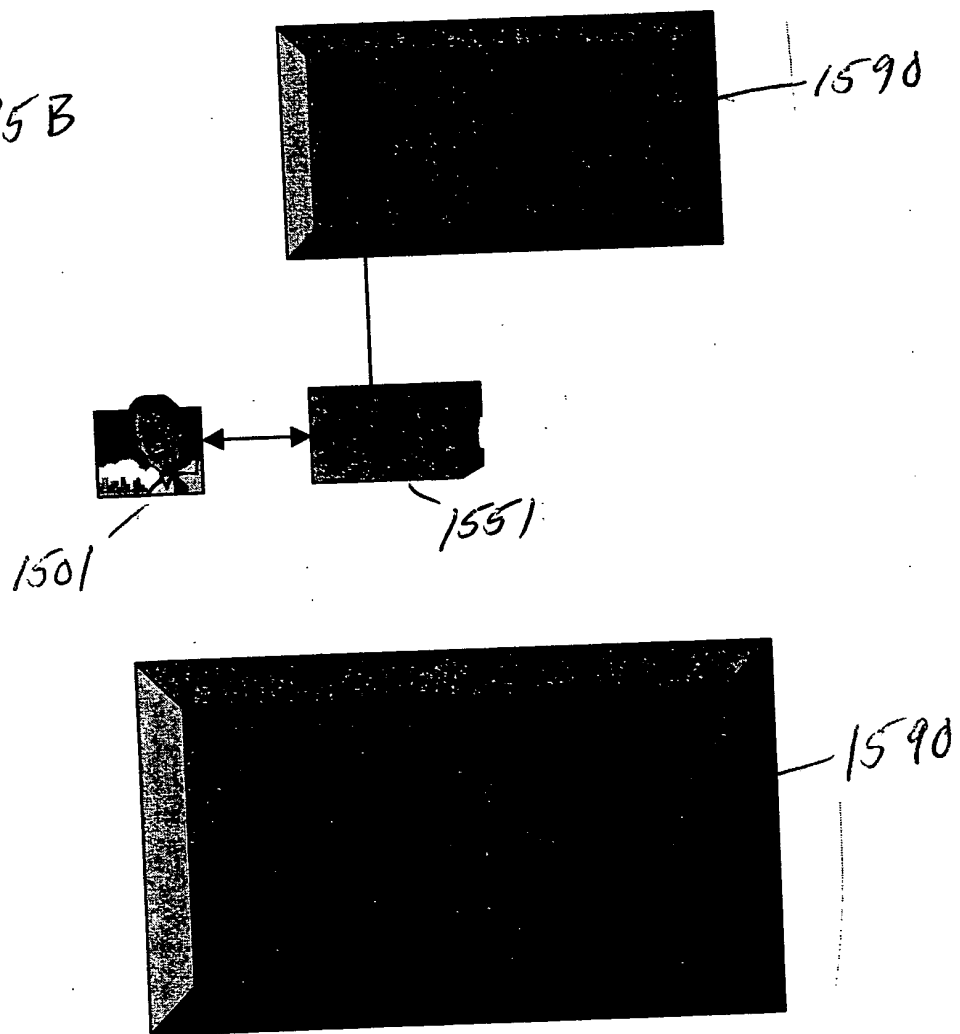


Figure 15C

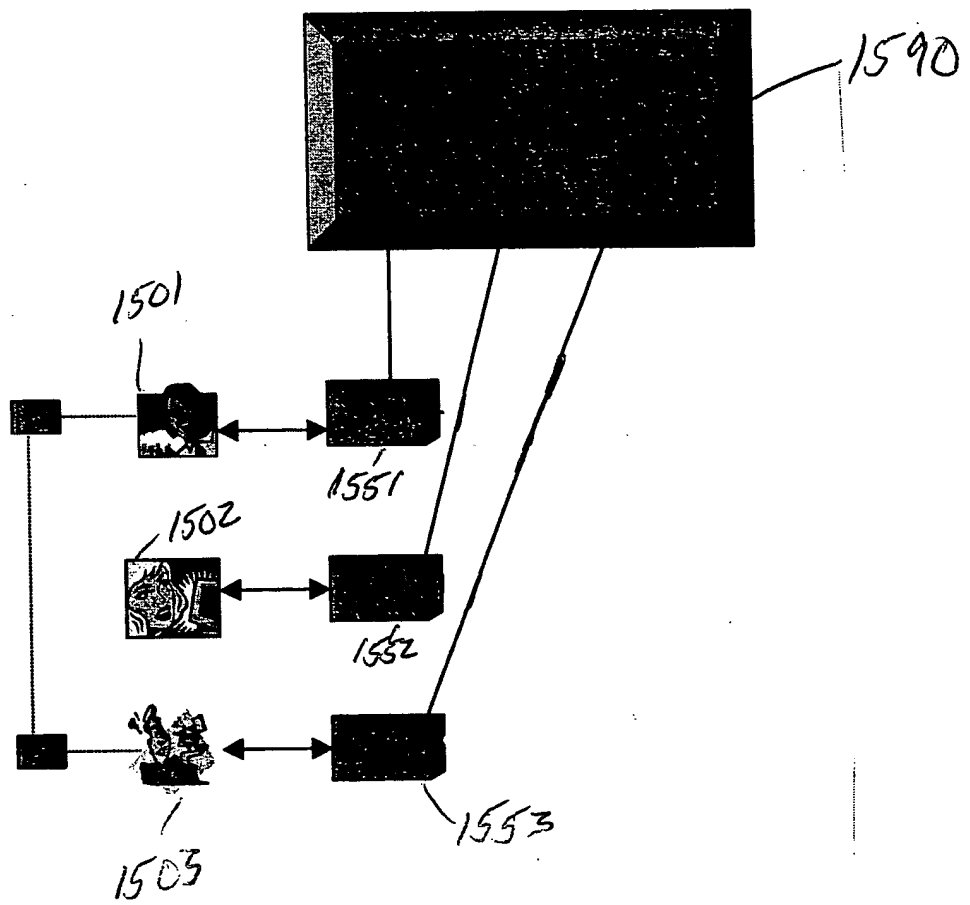


Figure 15D

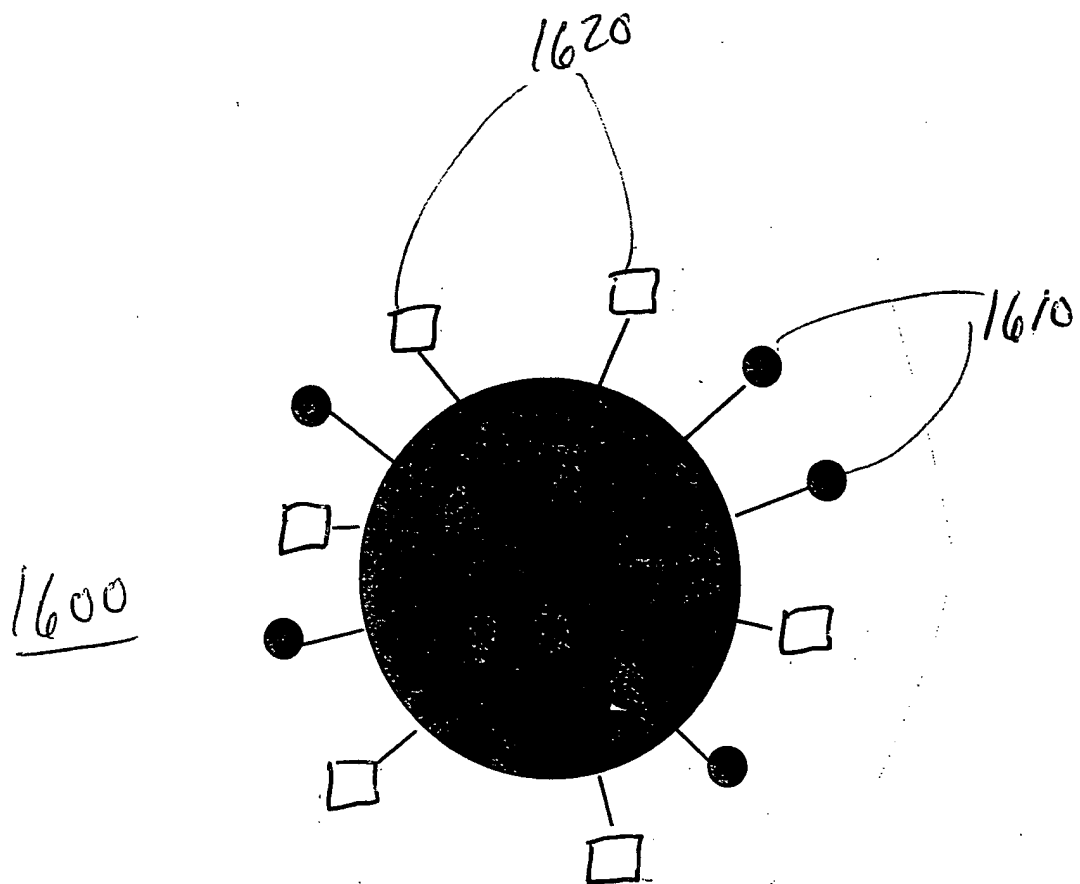


Figure 16.

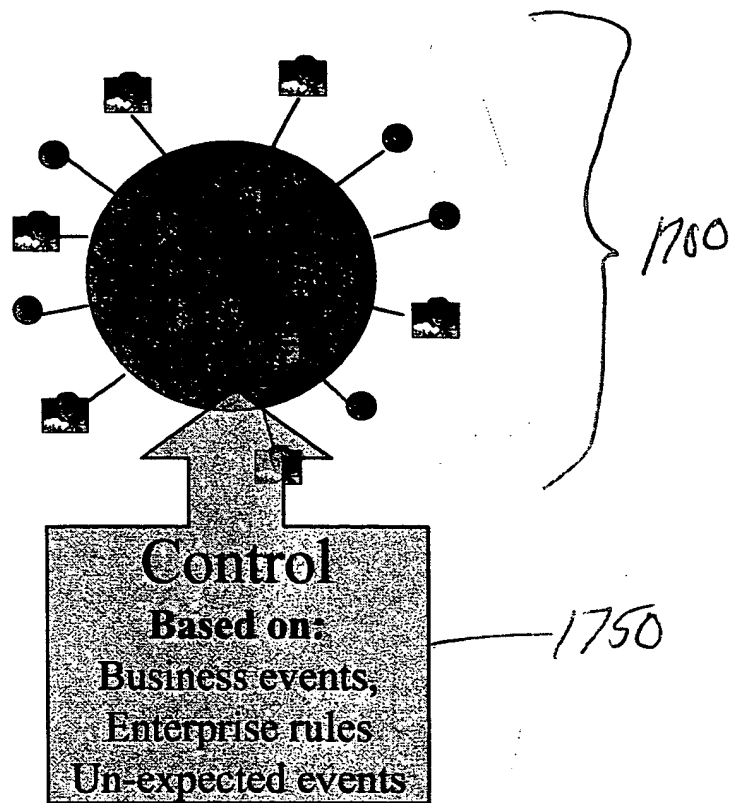


Figure 17

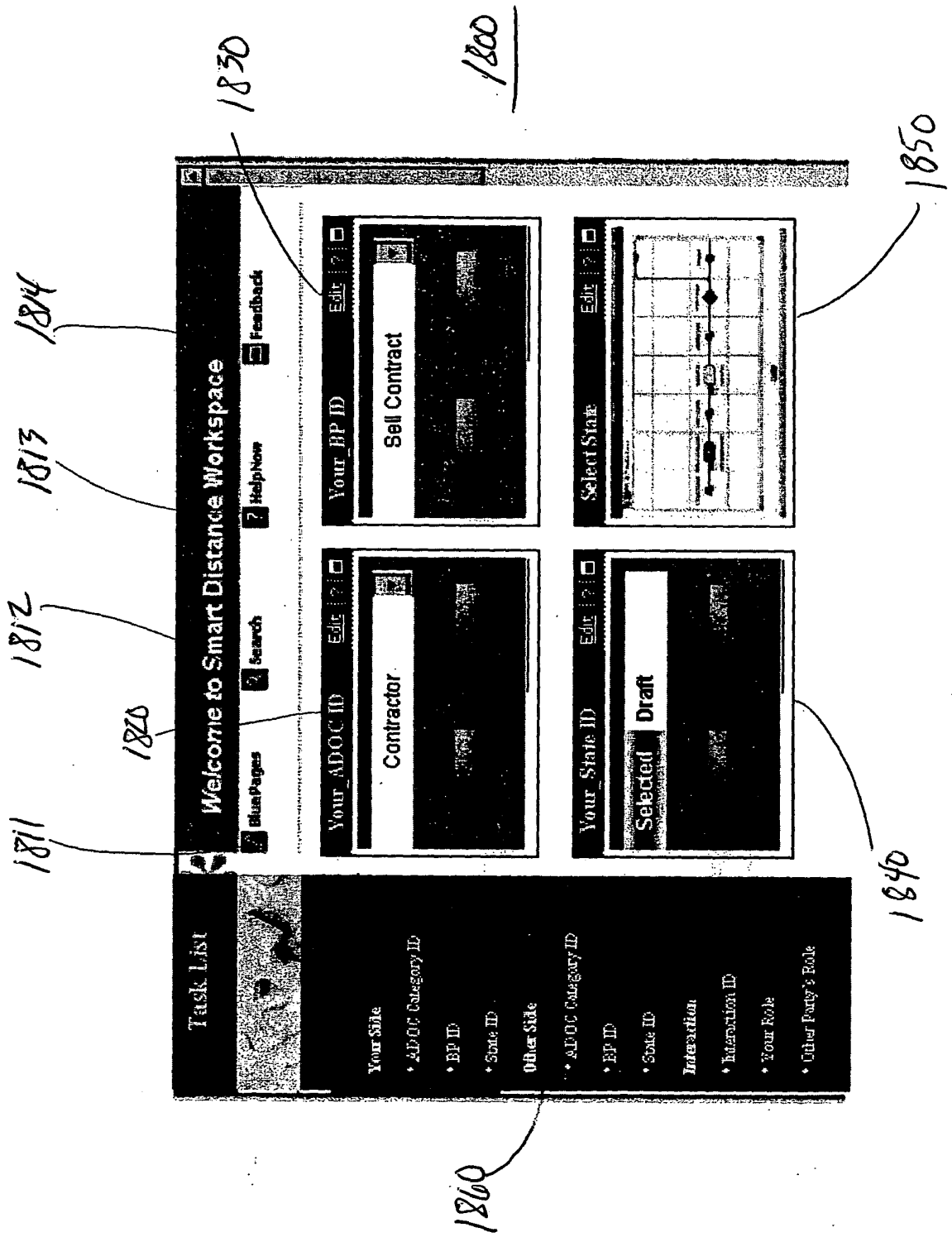


Figure 18

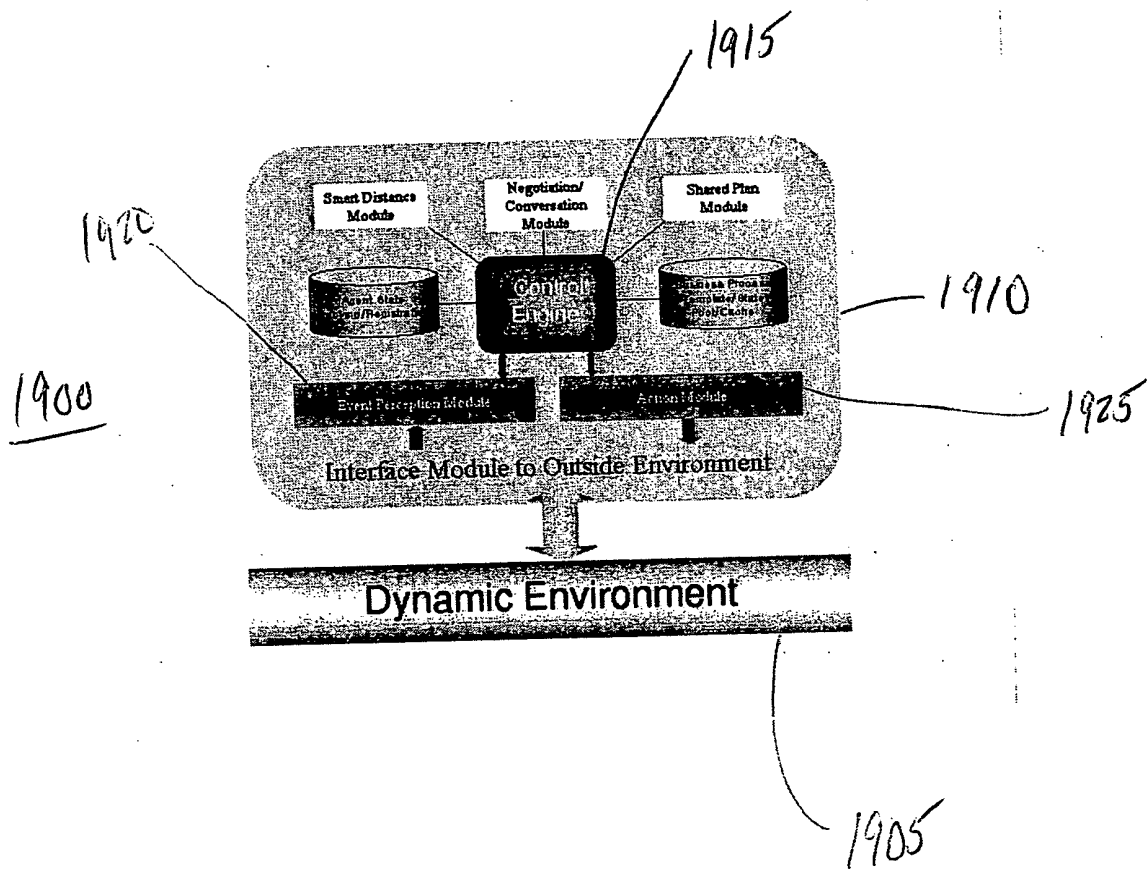


Figure 19

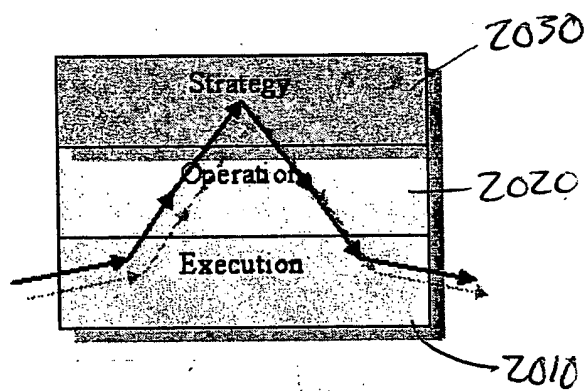


Figure 20

2100

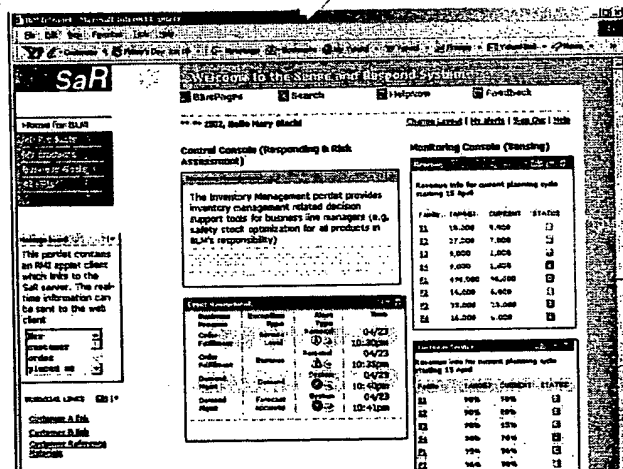


Figure 21.

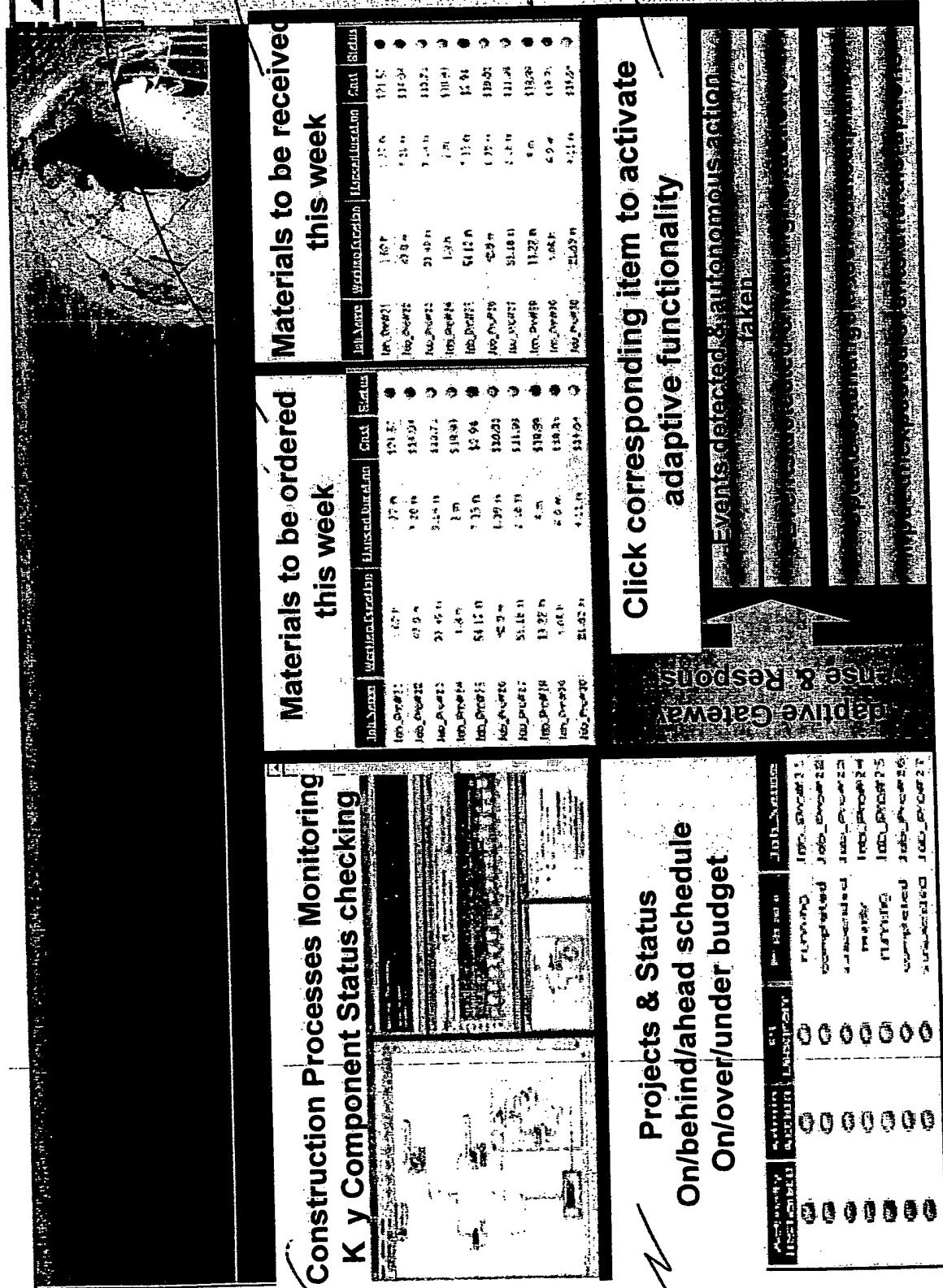


Figure 22.

2200

Events detected & autonomous action taken

Detected Event Lists
Click an item to show actions

Job Name	Weighted Duration	Elapsed Duration	Cost	Status
Job_000001	1.00 m	1.00 m	\$10.00	●
Job_000002	1.00 m	1.00 m	\$10.00	●
Job_000003	1.00 m	1.00 m	\$10.00	●
Job_000004	1.00 m	1.00 m	\$10.00	●
Job_000005	1.00 m	1.00 m	\$10.00	●
Job_000006	1.00 m	1.00 m	\$10.00	●
Job_000007	1.00 m	1.00 m	\$10.00	●
Job_000008	1.00 m	1.00 m	\$10.00	●
Job_000009	1.00 m	1.00 m	\$10.00	●
Job_000010	1.00 m	1.00 m	\$10.00	●

Autonomous Actions
Taken

Job Name	Weighted Duration	Elapsed Duration	Cost	Status
Job_000001	1.00 m	1.00 m	\$10.00	●
Job_000002	1.00 m	1.00 m	\$10.00	●
Job_000003	1.00 m	1.00 m	\$10.00	●
Job_000004	1.00 m	1.00 m	\$10.00	●
Job_000005	1.00 m	1.00 m	\$10.00	●
Job_000006	1.00 m	1.00 m	\$10.00	●
Job_000007	1.00 m	1.00 m	\$10.00	●
Job_000008	1.00 m	1.00 m	\$10.00	●
Job_000009	1.00 m	1.00 m	\$10.00	●
Job_000010	1.00 m	1.00 m	\$10.00	●

Possible Action Sets
Considered by

Job Name	Weighted Duration	Elapsed Duration	Cost	Status
Job_000001	1.00 m	1.00 m	\$10.00	●
Job_000002	1.00 m	1.00 m	\$10.00	●
Job_000003	1.00 m	1.00 m	\$10.00	●
Job_000004	1.00 m	1.00 m	\$10.00	●
Job_000005	1.00 m	1.00 m	\$10.00	●
Job_000006	1.00 m	1.00 m	\$10.00	●
Job_000007	1.00 m	1.00 m	\$10.00	●
Job_000008	1.00 m	1.00 m	\$10.00	●
Job_000009	1.00 m	1.00 m	\$10.00	●
Job_000010	1.00 m	1.00 m	\$10.00	●

Performance

Job Name	Weighted Duration	Elapsed Duration	Cost	Status
Job_000001	1.00 m	1.00 m	\$10.00	●
Job_000002	1.00 m	1.00 m	\$10.00	●
Job_000003	1.00 m	1.00 m	\$10.00	●
Job_000004	1.00 m	1.00 m	\$10.00	●
Job_000005	1.00 m	1.00 m	\$10.00	●
Job_000006	1.00 m	1.00 m	\$10.00	●
Job_000007	1.00 m	1.00 m	\$10.00	●
Job_000008	1.00 m	1.00 m	\$10.00	●
Job_000009	1.00 m	1.00 m	\$10.00	●
Job_000010	1.00 m	1.00 m	\$10.00	●

Do you want to allow this autonomous
Response in the future

Yes

No

Figure 23

2300

2320

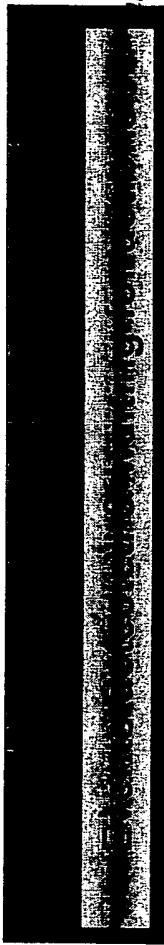
2335

2350

2310

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2340



Detected Event Lists

Click an item to show actions

Auto_Sensor	Warning_Threshold	Warning_Threshold	Cost	Radius
Auto_Sensor1	1.624	1.274	121.57	●
Auto_Sensor2	47.94	2.394	114.04	●
Auto_Sensor3	21.494	1.144	110.72	●
Auto_Sensor4	1.144	2.394	110.99	●
Auto_Sensor5	51.124	1.114	115.04	●
Auto_Sensor6	47.94	1.394	110.02	●
Auto_Sensor7	51.124	2.144	111.96	●
Auto_Sensor8	11.324	4.394	114.99	●
Auto_Sensor9	1.624	1.144	114.93	●
Auto_Sensor10	21.494	1.114	114.04	●

Suggested Actions Based on Optimizer

Auto_Sensor	Warning_Threshold	Warning_Threshold	Cost	Radius
Auto_Sensor1	1.624	1.274	121.57	●
Auto_Sensor2	47.94	2.394	114.04	●
Auto_Sensor3	21.494	1.144	110.72	●
Auto_Sensor4	1.144	2.394	110.99	●
Auto_Sensor5	51.124	1.114	115.04	●
Auto_Sensor6	47.94	1.394	110.02	●
Auto_Sensor7	51.124	2.144	111.96	●
Auto_Sensor8	11.324	4.394	114.99	●
Auto_Sensor9	1.624	1.144	114.93	●
Auto_Sensor10	21.494	1.114	114.04	●

Possible Alternative Action Sets Based on Adaptive Engine

Auto_Sensor	Warning_Threshold	Warning_Threshold	Cost	Radius
Auto_Sensor1	1.624	1.274	121.57	●
Auto_Sensor2	47.94	2.394	114.04	●
Auto_Sensor3	21.494	1.144	110.72	●
Auto_Sensor4	1.144	2.394	110.99	●
Auto_Sensor5	51.124	1.114	115.04	●
Auto_Sensor6	47.94	1.394	110.02	●
Auto_Sensor7	51.124	2.144	111.96	●
Auto_Sensor8	11.324	4.394	114.99	●
Auto_Sensor9	1.624	1.144	114.93	●
Auto_Sensor10	21.494	1.114	114.04	●

Performance

Auto_Sensor	Warning_Threshold	Warning_Threshold	Cost	Radius
Auto_Sensor1	1.624	1.274	121.57	●
Auto_Sensor2	47.94	2.394	114.04	●
Auto_Sensor3	21.494	1.144	110.72	●
Auto_Sensor4	1.144	2.394	110.99	●
Auto_Sensor5	51.124	1.114	115.04	●
Auto_Sensor6	47.94	1.394	110.02	●
Auto_Sensor7	51.124	2.144	111.96	●
Auto_Sensor8	11.324	4.394	114.99	●
Auto_Sensor9	1.624	1.144	114.93	●
Auto_Sensor10	21.494	1.114	114.04	●

Click to input inference engine

Do you want to make this an autonomous Response in the future

Yes

No

Figure 24

2400

2420

2435

2460

2480

2490

2492

Open the Inference Engine

Select or input the Changes/Updates

Select the Scheduled Plan

2530

2520

Job Name	Worktime (min)	Material (lb)	Cost	Status
Job_Plan01	1.07	1.77	121.52	●
Job_Plan02	49.0	1.20	134.24	●
Job_Plan03	23.48	1.14	133.72	●
Job_Plan04	1.37	1.20	138.93	●
Job_Plan05	51.12	7.11	15.04	●
Job_Plan06	70.7	1.35	139.21	●
Job_Plan07	53.18	2.10	131.67	●
Job_Plan08	13.72	4.2	138.99	●
Job_Plan09	1.64	6.2	138.23	●
Job_Plan10	21.32	4.11	131.04	●

Effects of the Selected Changes Based on Inference Engine

Job Name	Worktime (min)	Material (lb)	Cost	Status
Job_Plan01	1.07	1.77	121.52	●
Job_Plan02	49.0	1.20	134.24	●
Job_Plan03	23.48	1.14	133.72	●
Job_Plan04	1.37	1.20	138.93	●
Job_Plan05	51.12	7.11	15.04	●
Job_Plan06	70.7	1.35	139.21	●
Job_Plan07	53.18	2.10	131.67	●
Job_Plan08	13.72	4.2	138.99	●
Job_Plan09	1.64	6.2	138.23	●
Job_Plan10	21.32	4.11	131.04	●

Click if you think the inference engine can be enhanced and modify the engine

2530

Do you want to accept the changes And updates

Yes No

Figure 25

2550



Select or input the unexpected events

Job Name	Weighted Frequency	Elaboration	Cost	Status
Job_00001	1.00	1.27 m	121.87	●
Job_00002	0.75	1.30 m	131.04	●
Job_00003	0.75	1.30 m	131.04	●
Job_00004	1.00	1.30 m	131.04	●
Job_00005	1.00	1.30 m	131.04	●
Job_00006	1.00	1.30 m	131.04	●
Job_00007	1.00	1.30 m	131.04	●
Job_00008	1.00	1.30 m	131.04	●
Job_00009	1.00	1.30 m	131.04	●
Job_00010	1.00	1.30 m	131.04	●

The Inference engine Suggested responses

Job Name	Weighted Frequency	Elaboration	Cost	Status
Job_00001	1.00	1.27 m	121.87	●
Job_00002	0.75	1.30 m	131.04	●
Job_00003	0.75	1.30 m	131.04	●
Job_00004	1.00	1.30 m	131.04	●
Job_00005	1.00	1.30 m	131.04	●
Job_00006	1.00	1.30 m	131.04	●
Job_00007	1.00	1.30 m	131.04	●
Job_00008	1.00	1.30 m	131.04	●
Job_00009	1.00	1.30 m	131.04	●
Job_00010	1.00	1.30 m	131.04	●

Select or input responses

Job Name	Weighted Frequency	Elaboration	Cost	Status
Job_00001	1.00	1.27 m	121.87	●
Job_00002	0.75	1.30 m	131.04	●
Job_00003	0.75	1.30 m	131.04	●
Job_00004	1.00	1.30 m	131.04	●
Job_00005	1.00	1.30 m	131.04	●
Job_00006	1.00	1.30 m	131.04	●
Job_00007	1.00	1.30 m	131.04	●
Job_00008	1.00	1.30 m	131.04	●
Job_00009	1.00	1.30 m	131.04	●
Job_00010	1.00	1.30 m	131.04	●

Click if you think
The inference engine
Can be enhanced
And modify the engine

Do you want adaptive enterprise to handle
The unexpected events autonomously in the future

Yes

No

2600

Figure 26

2630

2640

2620

2610

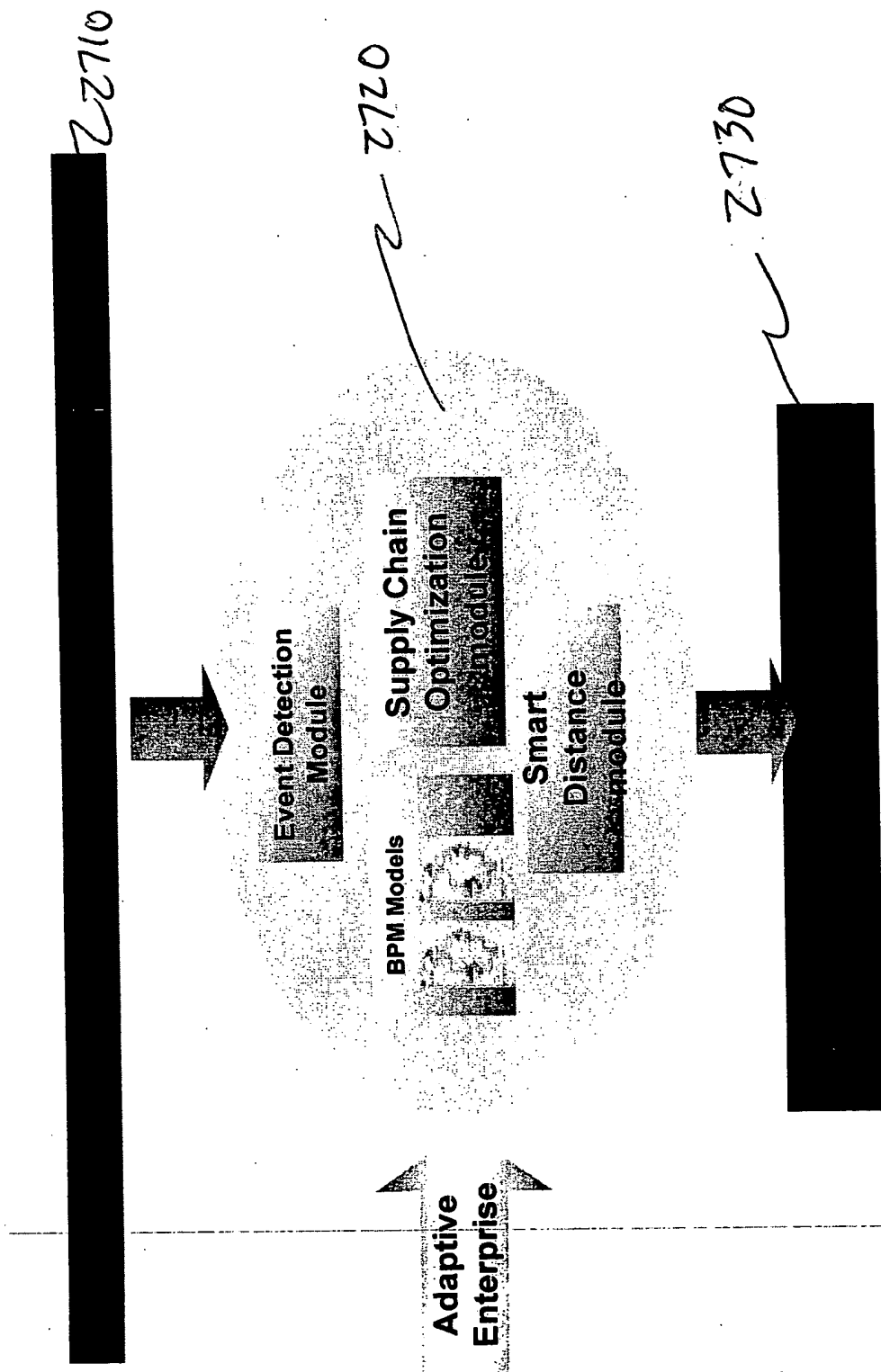


Figure 27

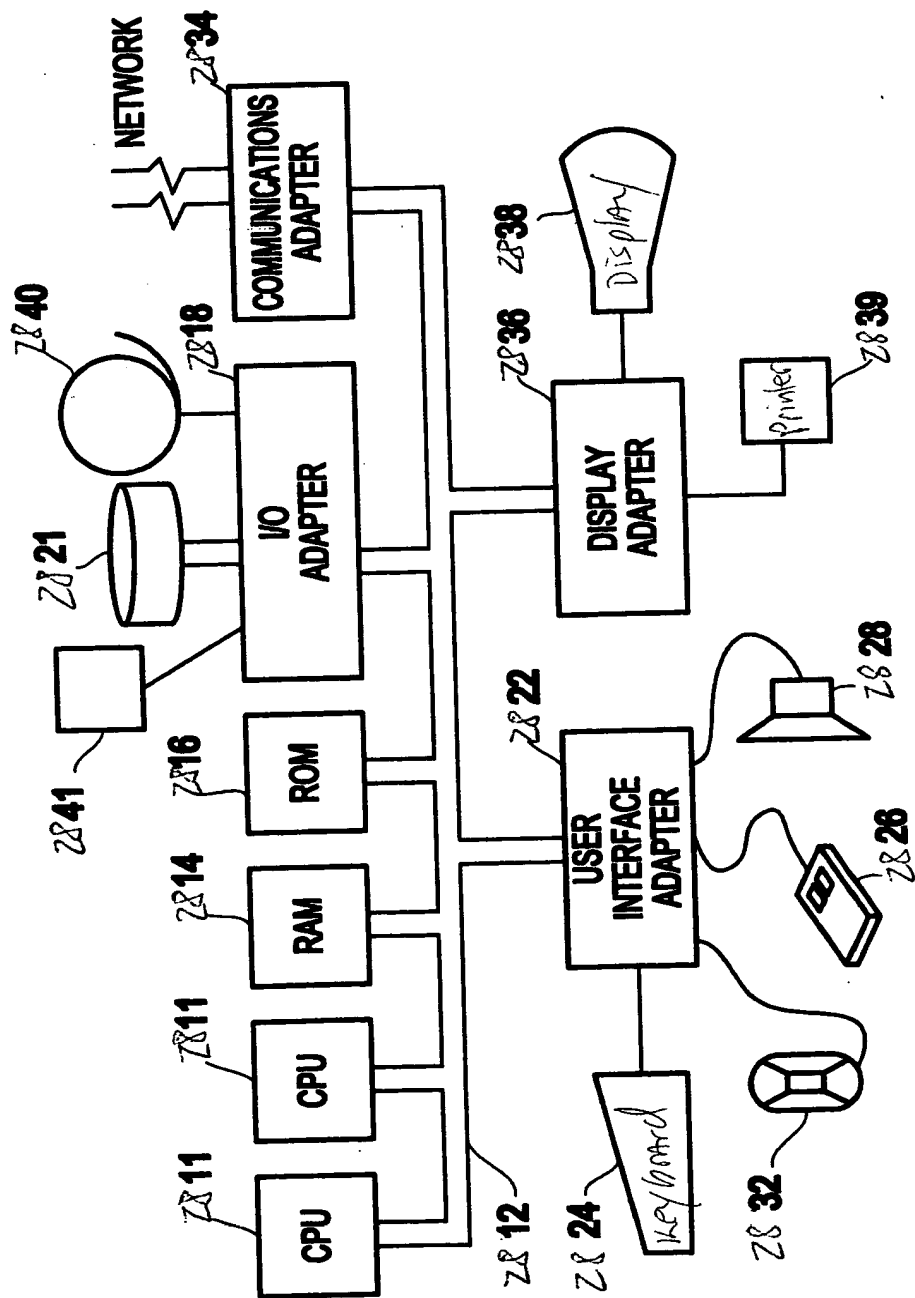


FIG. 28

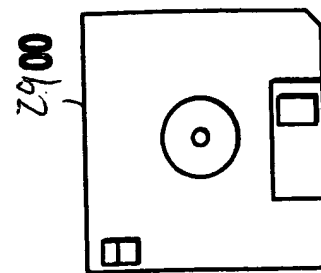


FIG. 29